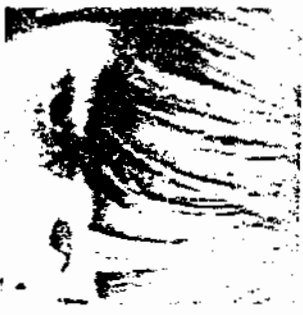


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SEDUCTION OF THE INNOCENT

ROBERT B. CHOATE

Mr. Chairman, my name is Robert Choate. For three years I have been very active on the issue of hunger and malnutrition in the United States. During that period I have scrutinized America's food policies and have tried to assess the best means of guaranteeing to every American an adequate and proper food supply. Working primarily on the issue of hunger, I have worked for Secretary Robert Finch in HEW, for the White House, and for the Senate Select Committee on Nutrition and Human Needs; when not so employed, I finance myself.

While I have been interested in the policies of American food companies for a long time, the six months' preparation for the White House Conference on Food, Nutrition and Health brought me into regular contact with some of the major decision-makers of the food industry. I met with many of the nation's top nutritionists; I conversed regularly with the more recognized food technologists and researchers. Studying nutrition education, I became appalled at the state of ignorance we all hold about food values.

During that period I urged reforms; I begged for new policies; I sought more imaginative and compassionate approaches to food

problems, particularly those of the poor. Some of the results of this work can be found in the final report of the White House Conference on Food, Nutrition and Health. Numerous recommendations in that report urge reforms, changes, innovations. We are now almost 8 months past that Conference. The policies remain unchanged; the ignorance persists; the reforms are in neutral gear. In an effort to revitalize the needed changes, I have prepared this report on a segment of the American food industry. Unfortunately, it is representative of the great mass of food merchandising today.

Among the 6000 different items in your grocer's shelves are 60 different breakfast cereals. The consumer is entitled to know which are the best. She is also entitled to an explanation of the sales technique used to urge these products to her table. She should understand what is being done to her child. Since industry has not acted, despite repeated recommendations by industry leaders and nutrition professionals at the White House Conference on Food, Nutrition and Health, it is time to consider governmental action.

Those leaders in the food industry who understand the need for reforms seem restrained by the fear of losing their competitive position. The food industry—America's biggest at \$106 billion a year—is fragmented, unsecure and jealous of small portions of the market. The biggest five food companies (by sales)—Swift, Kratco, Armour, General Foods and Borden's—together constitute less than 10% of the food industry. Leadership to initiate reforms is hard to inspire in such a competitive world. A major food company executive has told me that fear, not inspiration, may hold the key to food company reforms. If this is so, the American consumer may have to inspire that fear.

Under the usual economic restraints of corporate employment, we find a mass of well-intentioned but powerless food professionals. Those in the food professions hesitate to compare the nutritional worth of various foods; they are curiously reluctant to arm the buyer with protective knowledge against deceptive advertising, mislabeled boxes, and deceitful containers, or even to help him understand the new food technology. Most Americans are nutritional illiterates, and their lack of knowledge makes them an easy mark for segments of the food industry eager to conceal the comparative nutritive worth of their products. The cereal industry is a case in point.

Preparation of the Innocent by Robert Choate is testimony that was given before the Consumer Subcommittee of the Senate Commerce Committee.

White House Conference on Food, Nutrition and Health, Final Report, 1970, Government Printing Office, pp. 284-285.

THE 60 CEREALS

A study of 60 ready-to-eat cereals reveals that they are primarily calorie sources, the nutrient content of 40 of the 60 being so low as to remind this observer of the term "empty calories," a term thus far applied to alcohol and sugar.¹ In short, they fatten but do little to prevent malnutrition. Calories per ounce—a typical serving—range from 75 to 113 with 109 being very common. Fat content, a prime source of calories even in grains, ranges from 0.5 to 2.7 grams per ounce. Calories are a measure of the energy volume of a food, but food must contain more than calories if one is to remain healthy. The human system needs nutrients in the form of proteins, minerals and vitamins.

Proteins, which are needed daily, vary in quality. Grain proteins can be as good as meat, milk and egg proteins. If they are complete, Protein Efficiency Ratios (PER's) indicate whether a protein is complete. Whole milk has a good PER of 2.5. It is a commentary on cereal company ethics that PER's are available only on seven of the 60 cereals. PER's are not made available by cereal manufacturers for any but their best products; the very low PER's of most cereals² are a carefully kept secret. There seems to be little desire on the part of government to educate the public on PER's. On June 20, 1962, the U.S. Food and Drug Administration published in the *Federal Register* a proposed formula for evaluating protein values. The Canadian Government adopted such a formula, and uses it today to inform consumers of protein quality. Despite revisions and much-delayed hearings, the United States did not adopt such a formula and the Food and Drug Administration seems to have lost interest in alerting the public to PER's of cereals and other grain products. Both the Food and Drug Administration (FDA) and the U.S. Department of Agriculture (USDA) have responsibilities; neither will act. One of the reasons given for FDA reluctance to establish minimum standards in all nutrient categories for cereals is that such standards "might connote recognition of these products as a source of good food values."³ It also may be opposed by the industry.

In each ounce of the 60 cereals, the protein content ranges from 1.5% to 9.5% of an adult's recommended dietary allowance (RDA).⁴

¹White House Conference on Food, Nutrition and Health, Final Report, 1970, Government Printing Office, p. 57.

²See, Barnett, "Nutritional Values of Proteins in Various Cereal Breakfast Foods," Food Research 16 167-165 (1951).

³Clarke, Juno-Ahn Krohn and Kennedy, Barbara M., "Availability of Lysine in Wholemeal Bread and in Selected Breakfast Cereals," Journal of Food Science 27 600-616 (1962).

⁴Average to 60 grams per day, based on 1950 figures published by the National Research Council.

Only 10 of the cereals have 5% or more of the RDA per one ounce serving. A child of 14 or a middle-aged adult may need approximately 60-65 grams per day. The three top protein cereals average 5.3 grams of protein per ounce, with PER's declared. The rest have less than 4 grams, with generally unstated PER's. Dry cereals, it appears, are a poor and expensive source of complete proteins.

All of the cereals contain iron ranging from 3% to 200% of an adult's minimum daily requirement (MDR). That more iron is needed in our systems is now recognized by the Food and Nutrition Board of the National Research Council. The MDR of iron is about to be raised. There is some difference of opinion on the forms and amounts of iron that can be ingested, particularly by those already anemic. These doubts led us to show iron content on the graphs that follow only up to 100% of present minimum daily requirements.

Calcium is found in most cereals, in amounts ranging from 0 to 14.1% of an adult's minimum daily requirement. Judged apart from the milk which may be used on the cereal, the 60 represent a poor and expensive source of calcium.

Vitamins can be added to cereals, but only 8 of the 60 cereals contain vitamins A, C or D. Those eight contain from 33% to 100% of the minimum daily requirement of one or more of those vitamins. Most of the cereals contain B vitamins, especially niacin and thiamine. About half also contain riboflavin. The thiamine is particularly needed in foods with high carbohydrate content; its absence, as is found in several cereals, is detrimental to the consumer, if not provided by other foods.

Nutrient percentages are frequently judged adequate if they relate favorably to the percent of total daily calories afforded by that particular food. Some nutritionists will therefore tell you that a food with 10% MDR in iron is O.K. If that food provides 10% of the day's needed calories. This is frequently fallacious. Today many children, particularly poor children, get most of their calories from fats and sugars. These calorie sources have no nutrients—hence the term "empty calories." Other foods must make up for what they lack.

To compare the nutrient worth of various products is difficult. All told, there may be 30 or more different nutrients, all needed in various amounts and time periods. For simplicity's sake, we have analyzed and compared the cereals on the basis of the protein, iron, calcium, vitamins A, C and D, and the B vitamins: thiamine, riboflavin and niacin in a typical one ounce serving. Recognizing the need for balanced nutrient intake, we have added together the individual nutrient percentages of a typical human's daily needs to ascertain a

purely numerical rating for each cereal. For instance, if a one ounce serving of a given cereal provided 10% of a person's minimum daily requirement of each of the above nine nutrients, then that cereal would have a numerical rating of 90. (Ten points for each of the nine nutrients.) In this way we have been able to compare the nutritional merits of sixty dry cereals.*

We have tabulated below the 60 cereals by nutritional content, showing cumulative nutritional merits. We believe it is useful to provide such a graphic display of the comparative value of cereals, especially since the variations are so great. While such a graph oversimplifies the interaction of nutrients, it does portray what the cereal companies are boasting about on their own boxes. In short it uses their standards. Were one to be comparing cereals for use on a desert island over a six month period, a more sophisticated comparison analysis should be made. Within one food group, such a graph has some merit. It should not be used across food groupings. The total rating number is only a number and is not a percentage figure.

The graph has some natural divisions. Three of the cereals—Kellogg's Product 19, General Mills' Kaboom and Total—seem clearly the best from a nutrient standpoint. An additional six, having high numerical ratings from a variety of nutrients, seem nutritionally meritorious. They are:

- Nabisco, 100% Bran
- Quaker Oats Life
- General Foods Fortified Oat Flakes
- Kellogg's Special K
- General Foods Super Sugar Crisp
- Kellogg's Sugar Smacks

Another eleven seem to have some redeeming features. The bottom 40 seem to warrant the term "empty calories." For a budget conscious family, they are a bad nutrient investment for the dollar. They have calories and little else.

The nutritional worth of a cereal is not related to its cost to the consumer. A recent study of cereal costs in Philadelphia showed the

price per ounce for dry cereals to range from 2.2¢ to 7.4¢. Kellogg's Bran Buds was the cheapest; Quaker Oats Puffed Wheat was the most expensive. The cost per ounce is shown in the right-hand margin of the attached bar graph describing cumulative nutrient contents. The average price per ounce is 3.8¢ for the top twenty cereals, 4.5¢ for the middle twenty, and 4.4¢ for the bottom twenty.

Over 50 of the 60 cereals are sugar frosted, sugar coated, or otherwise sweetened at the factory. This has serious implications for children's teeth.**

Packaging of cereals seems designed to confuse the customer on cost per ounce. The smallest packages—the one serving, eat-out-of-the-box group—are the most costly. The comparative prices quoted elsewhere are based on the largest box available in a major supermarket. Box sizes, however, ran from 7 ounces to 18 ounces, with 12 and 15 ounce sizes being common. But does the industry have to have boxes in 7, 8, 9, 10, 12, 13, 15, 16 and 18 ounce packages? Even if the nutrients were comparable, what shopper could analyze the benefits per dollar expended?

To illustrate the wide range of benefits gained, I have listed some of the nutrients obtained from various cereals for a 10¢ investment.†

	Protein (no PER ovalin)	Calcium (Mg.)	Iron (Mg.)	Thiamine (Mg.)
Kellogg's Product 19	1.86	4.6	140	1.86*
General Foods Fortified Oat Flakes	2.79	14.3	120	52.6
General Foods Raisin Bran	3.4	9.5	78	27.6
General Mills Wheaties	2.96	7.3	36	3.8
Nabisco Shredded Wheat	3.0-	7.5	30	0.7
Quaker Oats Puffed Wheat	1.35	5.4	11	1.6
				0.22

(Ounces eaten for 10¢ investment)

*Two to four ounces of milk, either whole, skimmed, or reconstituted powdered, generally are consumed with these cereals. Vitamin D is added to the milk about half the time. The milk's contribution is itemized later. If cereals are advertised without milk, it seems correct to include a dry analysis.

†From the running for top honors is Quaker Oats, King Vitamin, which is new on the market and not included in this graph. It lists nutrient levels at 100% MDR of iron, niacin, thiamine, riboflavin and vitamins A, C, and D, but claims no protein.

†Resolution on Sugar and Dental Cavities, House of Delegates of the American Dental Association, September 1933.

**Milk House Conference on Food, Nutrition and Health, Final Report, 1970 (Government Printing Office) Page 49, Recommendation No. 3, Panel 11-12.

†From Table 8, "An Evaluation of the Nutritional Quality of Ready-To-Eat Cereals," Morris C. Melt, D. Sc., The Academy of Food Marketing, Saint Joseph's College, Philadelphia.

Several breakfast products do not fit the usual interpretation of "dry cereals." Two are worth mentioning: Kellogg's Concentrate and Kretschmer's Wheat Germ. They appear to be additives to upgrade cereals rather than cereals themselves. The former costs 8.1¢ per ounce, has 106 calories, and has an impressive number of nutrients per ounce: Protein, 18.9% recommended dietary allowance (RDA) (PER asserted to be 2.5—that of milk itself); calcium, 6.0% of minimum daily requirement (MDR); iron, 50% MDR; vitamin C, 50% MDR; and vitamins B₁, B₂, and niacin, 50% MDR. Wheat Germ costs 3.7¢ per ounce, has 106 calories, and also has good nutritional credentials: Protein, 31.5% RDA (PER asserted to be 2.5); calcium 0; iron 25% MDR; vitamin C, 9% MDR; vitamin B₁, 50% MDR; vitamin B₂, 19% MDR; and niacin, 14% MDR.

Genetically speaking, the bran cereals, all rate in or near the top third. Corn cereals, reflecting corn's low nutritional worth, gravitate toward the bottom. All the shredded wheats seem anxious to stay at or near the bottom. Nabisco's Shredded Wheat doesn't list its nutrients and has, to this observer, highly questionable box labelling."

A frequent defense of the dry cereal industry comes in the form of describing a cereal's nutrient worth in combination with the sugar and milk which may accompany it. If cereals are to be considered a meal unto themselves, the argument has some merit. Believing that such a meal should provide one third of the minimum daily requirements in major categories, we have analyzed in Graph Number 2 to what degree selected cereals fall short of providing one third of MDR's in the nine aforementioned categories. We have shown three meritorious, three average and three lower-grade cereals with 4 ounces of non-vitamin D milk added. It becomes quickly obvious that the average cereals—those outside of the top twenty—fall as a complete meal even with milk added. Even if the amount of cereal were doubled while the milk remained constant, the nutrient value of these meals would still be inadequate.

That some cereals are of greater nutritional worth than others should come as no surprise. But which cereals are advertised, and to whom? Since cereal eaters are often under 16, what is the nature of the sales effort made to the young American whose taste and food patterns are just being formed?

CEREAL ADVERTISING

Every Saturday morning the national networks carry extensive cartoons and adventure films. TV Guide says of this period:

In recent years, these Saturday morning programs have become colossal moneymakers for the networks—delivering, as they do, a demographically pure audience for the makers of toys and breakfast cereals. The total network profits are high—about \$20 million a year—and to assure their continuance, TV programmers have been spending record amounts of cash to develop shows that will capture the allegiance of the Nation's small fry and therefore the money of advertisers who want to reach the small fry.

For practical purposes, Saturday-morning children's TV is a scale model of the prime-time ratings battle, with all the same factors in force. The object of the game (seen from a TV executive's chair) is to attract the largest share of the available audience, thereby maximizing one's profits and pleasing one's advertisers and stockholders.

Each and every Saturday morning, about 50 percent of all the Nation's 2-to-11-year-olds are in place before their TV sets. Even at that age, they comprise an important "market" in the great American mercantile structure. And where a market exists—in the inexorable logic of free enterprise—goods and services materialize to tantalize its special tastes."

After recently reviewing the nature of the advertisements and products interspersed among 100 minutes of Saturday morning children's cartoons on both CBS and NBC, I believe that:

1. Our children are deliberately being sold the sponsor's less nutritious products;
2. Our children are being programmed to demand sugar and sweetness in every food;
3. Our children are being counter-educated away from nutrition knowledge.

On Saturday, June 6, 1970, during children's cartoon time, seven-ly-three spot advertisements of 100 minutes each on NBC and CBS television advocated purchasing cereals, candies, cookies, popcorn, soda pop and toys.

"Nabisco Shredded Wheat label exhibited. Relative position of Shredded Wheat revised in later testimony.

"Eron, Edith and Mickey, Nell, "TV and Your Child: In Search of an Answer," a series from 1969 issues of TV Guide Magazine, Triangle Publications, 1968.

In 100 minutes on CBS and NBC, the following breakfast foods were touted:

- Kellogg's Corn Flakes
- Kellogg's Sugar Smacks
- Kellogg's Sugar Pops
- Kellogg's Raisin Bran
- Kellogg's Sugar Frosted Flakes
- Kellogg's Cocoa Krispies
- Kellogg's Rice Krispies
- Kellogg's Puffa Puffa Rice
- Kellogg's Froot Loops
- Kellogg's Pop Tarts
- Kellogg's Danish Go Rounds
- General Foods Raisin Bran
- Ralston Purina Sugar Frosted Chex
- Quaker Oats Quake
- Quaker Oats Quisp
- Quaker Oats Cap'n Crunch
- Quaker Oats Crunchberries
- General Mills Cheerios
- General Mills Cocoa Puffs
- General Mills Trix

ABC, monitored two Saturdays later over a seventy-minute period, included only two cereal advertisements—Cheerios and Cocoa Puffs—among its Tastykake, Orange Crush, Slurpee, Milky Way and M & M candy messages. A much higher percentage of public service spots were included, such as anti-smoking, Smokey the Bear, YWCA, Cub Scouts and pesticide warnings.

On television, the visual part of the advertising message is important. Even if the advertisement verbally does not boast of muscle-building protein, the flexing of a bicep or the up-rooting of a tree while the cereal is being spooned from a bowl conveys to a child that the cereal can do wonders for his physique. And if the program hero is involved, the child viewer is convinced of the cereal's worth. The interchange of heroes from program plot to advertising scenarios is common.

The television message generally avoids verbalizing specific nutritional merits but stresses repeatedly: sugar, energy, sweetness, choc-

olate, vigor, frostedness, action, alertness and prizes. Half mentioned milk. Sample messages include:

"Golden flying saucers, sweet and crunchy and . . . loaded with quazy energy."

" . . . gives you lots of energy, good wind."

" . . . make breakfast taste like chocolate."

"Walking, stopping, digging, crawling, jumping high and never falling. . . . corn flakes takes you all the way."

"Eat . . . and you'll be a tiger in no time."

" . . . colorful cereal circles, sparkling with sugar crystals."

Cereal advertisers, it should be noted, did not invent the advocacy of sugared products. Every mother who has threatened to withhold dessert from an errant child has, in effect, given the sweetest part of the meal a reward symbolism which makes it more attractive. Desserts, in general, have less of the nutrients needed in a marginal diet than do the other courses.

A child watching 73 spots in a total of 200 minutes of Saturday television would gather (1) that cereals with sugar are great energy sources, (2) that energy and action are equivalent to happiness, and (3) that ability and health are a product of eating ready-to-eat, preferably sweet, cereals. Is this true?

Cheerios, the nation's most advertised cereal, has a TV budget of \$5,404,800 out of General Mills' total TV budget of \$29,425,100. In comparison with the other cereals, it ranks 25th out of the 60 in cumulative nutrient merits. It provides per ounce, 6.3% of the recommended dietary allowance (RDA) of protein. The protein efficiency ratio (PER) is 1.02. Also per ounce, it contains 6.9% of the minimum daily requirement (MDR) of calcium, 12.0% MDR of iron, 5% MDR of niacin, and 25% MDR of thiamine (B₁).

Rice Krispies, the nation's second most advertised cereal, has a TV budget of \$3,609,200 out of Kellogg's total TV budget of \$22,505,900. It contains no vitamin A, C or D and ranks 39th in cumulative nutrients among the 60 cereals analyzed. It provides 2.8% RDA or protein (no PER available), 0.9% MDR of calcium, 0.9% MDR of

calcium, 5% MDR of iron, 20% MDR of niacin and 11% MDR of thiamine.

Kellogg's Sugar Frosted Flakes, represented by Tony the Tiger, is the third most advertised brand, and Tony gets a TV budget of \$2,738,000. Sugar Frosted Flakes has no vitamin A, C or D and falls to 58th among the 60 cereals in nutritional merit. It provides 2.2% RDA of protein (again no PER), 0.2% MDR of calcium, 3.0% MDR of iron, 6.0% MDR of niacin, and 12% MDR of thiamine. Tony, one critic reports, is today's anti-Popeye.

Then comes regular old line Kellogg's Corn Flakes. This product has a TV budget of \$2,461,500. It too has dubious nutritional worth, being 38th out of the 60. Its protein boast per ounce is 3.5% RDA (no PER available). Its calcium content is 0.1% MDR, along with 7.0% for iron, 15% MDR of niacin, and 12% MDR of thiamine and 2.5% MDR of riboflavin. It contains no vitamins A, C or D.

Kellogg's Flaxin Bran has a TV budget of \$1,709,700. Well identified on children's TV, it has a protein value of 3.8% RDA, calcium content of 2.0% MDR, 100% MDR of iron, 20% MDR of niacin, 12% MDR of thiamine and 2.5% MDR of riboflavin. It has no vitamins A, C or D. This cereal is 13th in the rating of the 60.

Kellogg's Sugar Smacks, which has a TV budget of \$692,500, is rated ninth in comparison to the 60 cereals and is one of those counted nutritionally meritorious. It contains 2.3% RDA of protein (no PER), 0.5% MDR of calcium, 3.0% MDR of iron, and 33.3% each and Froot Loops, each stresses sweetness. The meritorious assessment of the first two places them down with Corn Flakes and Rice Krispies, while Froot Loops is 21st in nutritional merit.

Other Kellogg's products been advertised on children's TV and having TV budgets over \$500,000 are: Sugar Pops, Cocoa Krispies, and Froot Loops is 21st in nutritional merit.

Nine out of nine of Kellogg's cereals touted to children during the 200 minutes contain sugar or stress sweetness. Only two of them are in the top twenty, according to nutritional merit. One of them is in the top nine.

How about the other companies?

Big on Saturday morning kiddie cartoons are General Mills' Cheerios, Cocoa Puffs, and Trix. General Foods touts Raisin Bran,

Quaker Oats shouts Quake, Quisp and Cap'n Crunch. Each has a TV budget over \$500,000 per year. None are in the top nine, nutritionally. All contain sugar. (General Mills' Wheaties, not seen on Saturday mornings, is a major advertiser, with \$1,125,400. Nutritionally, it rates 29th out of the 60.)

Even a cursory review shows that the better cereals are advertised to older viewers. The rest are touted to the children, generally on a sugar-related message. Prizes further seduce those to whom sugar is no favor.

According to Advertising Age of August 25, 1969, these vast expenditures of advertising net the companies a gigantic percentage of the dry cereal market.

	Dry cereal TV budget	Dry cereal percent of market
Kellogg's	\$18,778,500	43
General Mills	15,819,200	21
General Foods	7,690,400	18
Total	42,278,100*	82

*For comparison of advertising expenditures: General Motors has a TV budget of \$42,000,000 per year.

Best sellers are:

	Percent of market
Kellogg's Corn Flakes	9
Kellogg's Rice Krispies	5
Kellogg's Sugar Frosted Flakes	5
General Mills Cheerios	7
General Mills Wheaties	4

These six cereals rate 38th, 39th, 58th, 25th and 29th in our nutritional rating order.

We do not state that the better cereals are not advertised. The following top nine cereals include many with healthy budgets. While the TV expenditure is the largest portion of their advertising cost,

magazines and other periodicals also contain their ads. In this regard they are unlike the cereals sold primarily to children, which have budgets almost totally devoted to television expense.

	TV budget
Kellogg's Product 19	\$2,226,917
General Mills Kaboom	1,959,000
General Mills Total	2,567,200
Nabisco 100% Bran	?
Quaker Oats Life	946,700
General Foods Fortified Oat Flakes	?
Kellogg's Special K	2,184,900
General Foods Super Sugar Crisp	1,366,900
Kellogg's Sugar Smacks	\$92,500

A few additional points must be made on the advertising of cereals to children. A recent petition to the Federal Communication Commission by ACT (Action for Children's Television) of Boston included a study of television advertising practices on more than just the Saturday morning shows. Ralph M. Jennings reported that in city after city, weekday or weekend, cereals, candies and toys dominated the advertising message. "The only time when cereal advertising decreased is when the toy manufacturers bid the cost of the advertising time to prohibitive levels just before Christmas."

An insidious part of advertising to children—be it for cereals, candies or toys—is the practice of the hero character emerging from the plot or scenario of the cartoon or adventure and hawking his sponsor's products. The Banana Splits and Captain Kangaroo regularly do this. We have avoided mentioning the plot or scenario of the children's shows. Suffice it to say that the action is violent, repetitive and unreal. Entertainment, not education, is the message. The networks generally oversee the content of the programs; certainly they influence the content by virtue of matching advertiser to program. Ultimate responsibility for honesty and quality lies with the company; children's shows the theme of the program is not so sacrosanct to not be influenced by the advertising dollar.

Let's one feel that messages directed to children carry little weight, interviewed one Washington Safeway manager as to cereal merchandising. The gist of his remarks included:

There's no doubt it's the kids who select the cereals.

Sales volume shifts as television ads promote one product or the other.

The newer cereals seem to be making a dent in the old favorites.

Like the cereals, the pop-up products are influenced by fads.

Cereals occupy about one-thirtieth of our shelf space.

Our return, our earnings, from cereals averages out above most of the other departments.

Look at that checkout counter; that lady must be taking home six boxes of cereals.

These comments gain importance when one understands the extent to which children demand foods hawked to them on television. They are further underscored when one realizes that many children today, particularly in depressed areas, do the shopping. "Medically important, the National Nutrition Survey under Dr. Arnold Schaefer found the incidence of malnutrition among the poor alarmingly high, particularly among children.

Once a cereal enters your home, the advertising changes emphasis. The back-of-the-box billboard, which is a medium unto itself, entices another purchase by hawking these rewards among the top nine cereals:

- Esther Williams advice on nutrition
- Decaffeinated Coffee and nutrition
- Puppets
- Pen Sets
- Historic Documents
- Racing Cars
- Dolls
- Jewelry
- Knives

Footnote: TV, Brand, Product and Parent Company Schedule Data and Expenditure Estimates for the Week Ending 7/7/1970. (Broadcast Advertisers Reports, Inc., New York) Section 2, p. 27.

Johns, Ralph M., "Programming and Advertising Practices in Television Directed to Children", Prepared for the Children's Television (ACT), April 1970.

"During a panel meeting prior to the White House Conference a supermarket manager of an eastern city stated that a recent survey had shown 12% of his customers to be under 12 years of age.

Obviously nutrition education has entered the minds of few merchandisers. Among the least nutritionally meritorious cereals, the following back-of-the-box rewards appear:

Archie records
Knives
Jewelry
Puppets
Pennants
Dolls
Stamping and printing sets
Art miniatures

Perhaps these children-oriented rewards are offered because any nutritional message might be embarrassing. The seduction of the innocent encompasses more than sugar-coating.

(Not long ago, a major cereal manufacturer brought together his cereal sales managers with hucksters of toys, plastics, and other box inserts. The meeting topic was what next to add to the cereal box to persuade Junior to buy more flakes. A disgusted employee finally could take it no longer, and suggested to the toy manufacturers that they might do better by including a box of cereal in the next toy package, and thereby save them both a great deal of trouble.)

We claim that our children are deliberately being sold the sponsor's less nutritious products; that our children are being programmed to demand sugar and sweetness in every food; and that our children are being counter-educated away from nutrition knowledge by being sold products on a non-nutritive basis.

These practices dominate the cereal world. In part, they are found in the marketing of every major food group. The consumer is the victim. The industry shows little inclination to stress comparative food values. The industry shows little inclination to correct our nutritional illiteracy. Stark evidence of this is the emerging "new campaign" of the Food Group—a team of food merchandising interests which is studiously avoiding the mention of comparative food values. Excluding the vapidness of this effort, its leader, Clarence Adamy of the National Association of Food Chains, volunteered that "It's only an alert and aware campaign—to make the public think about food. Besides, what else could we do?" Food merchants and food producers seem to fear anything more specific than a campaign to eat "from four basic foods groups."¹⁷

WHO'S TO BLAME?

It would seem that the worst cereals are huckstered to the children on a totally anti-nutritional basis equating sweetness with health and ability, while the very few good cereals are sold to adults in a manner all but denying nutrient cost analysis. Is the research director or the sales manager at fault?

Conversations with food company officials indicate that while research departments know and can produce better quality products, in the main the sales departments dissuade the development of such products lest it "upset the established profit makers." The average American, it is believed, is impervious to a solid nutrition pitch.

It wasn't always this bad. Up through World War II we seemed more conscious of our food patterns. Still somewhat farm rooted, we had discovered pellagra in the Southeast, rushed to feed the world and suffered food rationing stamps. Henry Wallace was re-organizing the Department of Agriculture. We talked about food bargains and values.

Then several forces converged. Television discovered huckstering and we became persuaded to buy our foods more on the size, the shape, the smell of the box than on its nutritional content. Food was made "convenient," even if nutritionless. The Food and Drug Administration, handicapped by politics and a low budget, felt compelled to give drugs more attention than foods. It felt, and still feels, crippled by the dichotomy which gives the Federal Trade Commission authority over food advertising and the FDA authority over food labeling. "What," it asks, "is our role when a package label is shown on TV?" Food and Drug has no mandate to police nutrition; it does concern itself with honest labeling and product standardization. This pertains to ingredient identity, not nutrient values.

I feel the Food and Drug Administration must be authorized and financed to maintain a nutrient watch on American foods. And, its records should be made public.

Meanwhile the post-World War II production policies which fed the military machine rushed on undaunted and farm subsidies were raised to produce not protein-tons or iron-tons but plain tons. Volume and weight were rewarded, not quality. Lettuce heads became harder and coarser. Tomatoes became tougher. Beans and peas were sown better to fit the picking machine than our nutritional needs and taste desires.

Corn bushels per acre were all-important particularly when acreage was restricted. Corn volume rose, but not its nutrient content.

¹⁷Dr. Jean Mayer, Special Consultant to the President on Nutrition, deplores the four food group approach as being unsound nutritionally and educationally.

Only in 1969 did "Opaque 2" corn, a more nutritious corn, become whispered about among a handful of corn producers. Higher in lysine but lower in tonnage per acre, it will not achieve American farmer acceptance until subsidies change.

Food technologists have radically changed their profession in the last two decades. Food values now can be merged, as when two grains are blended in a cereal. Augmented foods, fortified foods frequently are better than their original, raw source materials. Grain proteins in particular can benefit by astute nutrient blending. Hence to teach food values from the basis of what raw ingredients went into a processed food may not only deceive the customer into thinking a processed food has the sum of the nutrients of its raw materials but may also hide the improvement in nutrient worth that an interested food producer may have carefully arranged to have added to his product. Fortified foods, augmented foods, and food using new nutrient technology are worth seeking out on the grocer's shelf. But first they have to be labelled; first they have to be advertised. And the consumer must be educated sufficiently to want to seek them out.

Incredible as it seems, there is in the United States no data bank where a citizen can seek a complete nutrient content analysis of any foods available to him at a local supermarket. Labels tell little; companies tell less. A citizen is defenseless in the face of a changing food technology.

Meanwhile the American consumer believes that his Food and Drug Administration is protecting him. FDA is not interested in nutrition; it conducts no regular review of nutritional content except to monitor the truth of food advertising. Its standardization practices have been more designed to assuage businessmen than to meet known nutritional needs among undernourished groups. For instance, bread manufacturers, not waiting nutritional competition but recognizing the need for re-establishment of nutrient values, asked FDA for "standards" and FDA obliged. Unfortunately, the FDA has not administered those standards in an enlightened manner to further the sales of extra-quality breads.

Food and Drug's role is not free of politics. Its budget is determined by Congress, and a shortage of dollars can restrict overambitious consumerism. The White House, by its power of appointment, also can influence the persistence of FDA in protecting the consumer in food matters. The citrus industry likes to represent itself as the source of Vitamin C. Fruit juice companies are not permitted to fortify citrus juices with Vitamin C. The same applies to tomato juice. All

juice may suffer Vitamin C loss in the processing; but FDA will not permit tomato juice to be fortified with C to a point where it might threaten citrus interests. Artificial juices, however, may be fortified.

Food and Drug since 1943 has relied on the Ivory tower Food and Nutrition Board of the National Research Council to set its food policies. "Fortify only up to original, raw quality levels" was their myopic recommendation over the last quarter century. They also no doubt influenced the non-standardizing of cereals "lest it connote recognition of these products as a source of good food values." They may have influenced the keeping of nutrients out of popular soda pops.

Food and Drug does not let soda pop manufacturers advertise their products on a nutritional basis. They apparently feel soda pops are going to go away—a particularly shortsighted view when one comprehends their use by the poor in some areas of the country.

On fortification of foods which might lower the cost of a balanced diet to a money-short family, FDA has sought refuge in reiterating USDA's urging that we "buy from four basic food groups."

The record of USDA is not much better—take for example the department's advisory statements for foods to be used in conjunction with the recently expanded school breakfast program. While recommending that breads or cereals be included, the Department carefully avoids any language that might shed light on the nutritionally better cereals.

USDA and FDA apparently fear upsetting historic food sources. They have been worried more about the economics of the market place than about meeting the nutritional needs of the budget-dominated American family. Up until recently they would only permit the fortification of foods up to the nutrient value of the raw product. This meant that with such foods as corn, fortification was only permitted up to original low nutrient levels. This meant with grains having low PER's after processing, the customer was supposed to buy meats and milk products rather than get equally nutritious protein at half the cost from fortified grain products.

The disposition of the Department of Agriculture to have everyone taught about food values on the basis of "four basic food groups" may be rank evidence of the power of four major lobbying groups to dominate consumer knowledge. It also may be trapping the United States into some outdated food suppositions. Many of the foods on the market today have less nutrients than two decades ago because of volume-oriented genetic research; many of the processes which bring food to the market lower the nutrient values as foods are frozen,

canned, baked, fried, or just packaged. These processes make our foods more convenient; we buy them for their size, their color or their smell—but seldom for their nutrient worth. In this regard the cereal industry is franker than most parts of the food industry. How many fruit juices, cake mixes or other prepared dishes advise the consumer of the nutrient contents?

SUMMARY

While some cereals have nutritional merit, those advocated to children seem to be of lower quality. They are advertised on a sugared basis, thereby creating a taste preference that may continue through life. The products advertised with them during the children's television show time also stress sweetness and sugar-energy. Despite warnings from dental authorities, today's TV watcher is programmed to want and trust in sugar for his health. Energy, sparkle, exhilaration and ability are equated with sweetness. This misinformation displaces any solid nutritional message which might give the youngster an understanding through life of the relationship between what he eats and how he feels.

In the home, the cereal box represents a domestic billboard. It could be a major educational force, but again it urges the purchase of certain foods based on rewards, toys and gimmicks and studiously avoids the ABC's of good nutritional knowledge.

Dry cereals are not a good buy for those on marginal budgets; their protein content and quality are generally low.

If a family likes dry cereals and can afford them, there are several with respectable nutritional content. But it is apparent in this first of several food industry analyses that we humans are viewed not as beings to be nourished, but as suckers to be sold.

I ask this Senate Subcommittee to investigate the policies of the cereal industry as it shapes the counter-nutritional message that is beamed to our children approximately 14 hours per week. I request that you analyze the content of the industry's advertising messages. I ask that you examine the reluctance of advertising agencies to stress nutrition; and I ask you to explore how both script and scenario writers and sponsors and networks alike can deliver this country from its nutritional illiteracy. Finally, I ask that you review the strange policies of the Food and Drug Administration, the Federal Trade Commission, and the Department of Agriculture, which perpetuate the misleading of the American consumer by those in the world of food production and marketing.